

# Eldar A. Musayev

Ph.D. (Math.&Comp.Sci.)

h. (425) 868-6806, c. (425) 891-6002 em@murus.us  
715 218<sup>th</sup> Ave. NE, Sammamish, WA 98074 LinkedIn: <http://www.linkedin.com/in/eldarmusayev>

## Best at

C++, C#, C, Win32, .Net, Silverlight, Asp.Net, Windows, XML, Javascript, SQL.  
Knowledge and algorithm intensive software development, runtime, back ends,  
performance, security.

## Experience

### 2006 – now **Software Engineer, Microsoft Corp.**

Zune Video, Smooth streaming media source for Silverlight 2.0 showcase:  
Broadcasting Beijing 2008 Olympic Games to United States.

9KLOC C# + C++, .NET, SILVERLIGHT 2.0, MEDIA FOUNDATION, COM, ASP.NET (AUGUST 2008)

XBox 360 Video Marketplace with HD smooth media streaming.

C++, MEDIA FOUNDATION, COM-STYLE, XUI, XDK (v.1 NOVEMBER 2009, v.2 IN PROGRESS)

Windows Home Server: Secure (TLS) client-server connection. Private  
certificate infrastructure.

16KLOC, C++, COM, WIN32; C#, ASP.NET (v.1 JULY 2007)

### 2000 – 2006 **Program Manager, Microsoft Corp.**

BizTalk Integration Server and eBusiness Web Services: core engine.

Windows Workflow Foundation: hosting & security model.

Microsoft XML Core Services (MSXML): 3 major versions.

### 1998 - 2000 **New Resources Corp., Peoria, IL**

Senior consultant and e-Business practice manager.

### 1996 - 1998 **Compressor Controls Corp., Des Moines, IA**

Software engineer, hard real-time fault tolerant embedded OS

### 1985 – 1996 **Steklov Mathematical Institute, Russian Academy of Sciences**

Research scientist, before that doctoral student.

Detailed job history and experience are available upon request. I'll also gladly boast about  
any of my achievements during the interview.

## Degrees

Ph.D. (Math. & Comp. Sci., 1988), M.Sc. (Mathematics, 1985)

## Alphabet soup

Windows, .Net, Silverlight, Win32, Asp.Net, Linux, XBox 360, C#, C++ (Borland C++ and Visual C++), C,  
IDL (COM/DCOM, Corba, and DCE), Java (IBM VusualAge / WebSphere), XML, XPath, XSD, XSLT, Javascript,  
Perl, PHP, Python, VBScript, SQL (MS SQL Server, IBM DB2, MySQL), CSS, HTML, Visual Basic

Exotic: Algol-68, AS/400, Asm x86 & 360, Clipper/dBASE III+, IBM 360/370, Modula-2, MS-DOS, MVS,  
OS/2, OS/370, OS/400, Pascal (including Delphi), PDP-11, PL/1, rBASE, Solaris, Standard and OPUS Make,  
Sun, WML, Xenix, XMLDSig

## Other

Languages: English, Russian. Can live and work in the United States.

*June 02<sup>th</sup>, 2010*

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## Highlights:

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- 1996-1998**    **Developer on proprietary hard real-time OS...**  
Controlling industrial compressors and turbines.  
“Hard” means 12 ms to respond, afterward \$90K/hour to clean up the mess (never happened)
- 1998-2000**    **Built eBusiness Practice for Midwest consulting company.**  
Before they even did not know word “eBusiness” and called it “eCommerce”.
- 2000-2002**    **Managed development of the fastest XML parser in the world. “X” in AJAX.**  
It’s still the fastest: MSXML. Shipped in all major products of Microsoft, including Windows, Office, SQL Server, BizTalk Server, SharePoint Server, and many more. That’s from where XMLHTTP object of AJAX came.  
Released versions 2.6, 3.0, 4.0, 5.0 (in Microsoft Office), and prepared version 6.0, which was shipped long after in Vista and SQL Server 2005.
- 2002-2006**    **Owned BizTalk Server core engine.**  
The part that stores and routes the messages, the one which actually makes messages come and go.
- 2006-2008**    **Unique Private Key Infrastructure for Windows Home Server.**  
Allowing home machines to communicate with Windows Home Server in a private confidential manner without relying on heavy-weight public key infrastructure (*a la* VeriSign).
- 2008**            **First in the World Microsoft Smooth Streaming (MSSS) Media Source under Silverlight 2.0.**  
Showing Beijing Olympic Games 2008 to the United States from NBC website. Ever heard of that copycat Apple Http Live Streaming?
- 2008-2010**    **HD 1080 streaming for Xbox Video**  
Check Zune Marketplace on your Xbox 360, it’s a hit.
- 2008-present** **Telemetry and business intelligence for video Smooth Streaming**  
Ever wondered how a small thing makes difference between success and failure? I’ll brag about that in person.
- 2010-present** **Speech control for Xbox Video**  
*“I can imagine how in a thousand years a poor soul, an apprentice of a court magician of the ruler of Ninsya-Huey-Shen province, tries to learn the correct pronunciation of a spell in a forgotten language of ancients mages “Xbox, Play!”, specifically with a Russian accent of the creator of this spell for the ancient magic artifact, the legendary Doctor Ely Asher ben Moses al Rus...”*
- 2010-???**     **To be continued...**  
What next magic thing can I do for Your company?...